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DIRECTORATE OF
INTELLIGENCE

Industrial Facilities
(Non-Military)

Basic Imagery Interpretation Report

Major Electric Power Plants

Szechwan Province, China

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CENTRAL INTELLIGENCE AGENCY
Directorate of Intelligence
Imagery Analysis Service

ABSTRACT

This report covers the six major electric power plants in Szechwan Province, central China. It updates previous basic reports on the plants at Cheng-tu, Chung-ching, and Kuan-hsien, and provides the initial basic reports on Chang-shou Hydro Power Plant Hsia-tung, Chang-shou Hydro Power Plant Shih-tzu-tan, and Nei-chiang Thermal Power Plant Pai-ma-miao. The cut-off date for information in this report is March 1970.

Chang-shou Hydro Power Plant Hsia-tung was complete and operational when first observed in June 1963. Since that time no changes have been observed. The plant contains a concrete dam, a powerhouse probably with two turbogenerators,and a switching yard with two probable transformers.

Chang-shou Hydro Power Plant Shih-tzu-tan was complete when first observed on imagery in June 1963. Since that time no changes have been observed. The powerhouse is 1 nm southwest of the dam. The powerhouse has four tailwater outlets indicating it was designed for four turbogenerators. A switching yard with at least two and possibly three transformers is adjacent to the powerhouse.

Nei-chiang Thermal Power Plant was first seen on photography of January 1963. At that time it contained a boilerhouse probably with two boilers, a generator hall and a switching yard. By November 1968 an additional section had been added to the boilerhouse and generator hall which doubled the size of the original buildings.

No construction or dismantling has been observed at the other three plants since the previous reports.

On the latest coverage, Chang-shou Hydro Plant Shih-tzu-tan and the plants at Cheng-tu, Chung-ching, and Nei-chang were operating. The operating status of Chang-shou Hydro Power Plant Hsia-tung could not be determined. The Kuan-hsien plant remains incomplete and is not operational.

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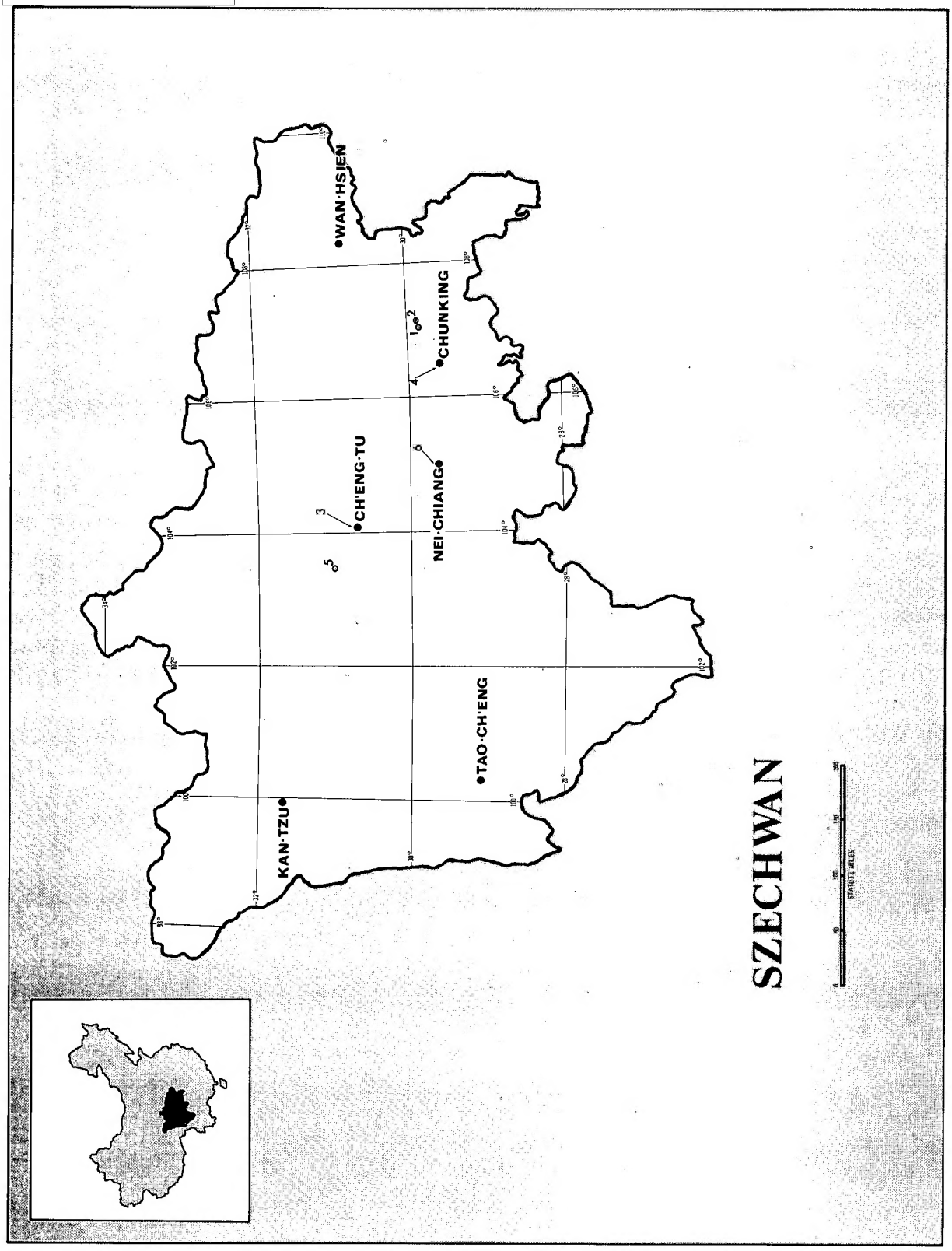

FIGURE 1. LOCATION MAP.

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INTRODUCTION

This report presents information on the current status of the following six major electric power plants in Szechwan Province.

1. Chang-shou Hydro Power Plant Hsia-tung
2. Chang-shou Hydro Power Plant Shih-tzu-tan
3. Cheng-tu Heat and Thermal Power Plant
4. Chung-ching (Chungking) Thermal Power Plant 507
5. Kuan-hsien Hydro Power Plant Yu-tsui
6. Nei-chiang Thermal Power Plant Pai-ma-miao

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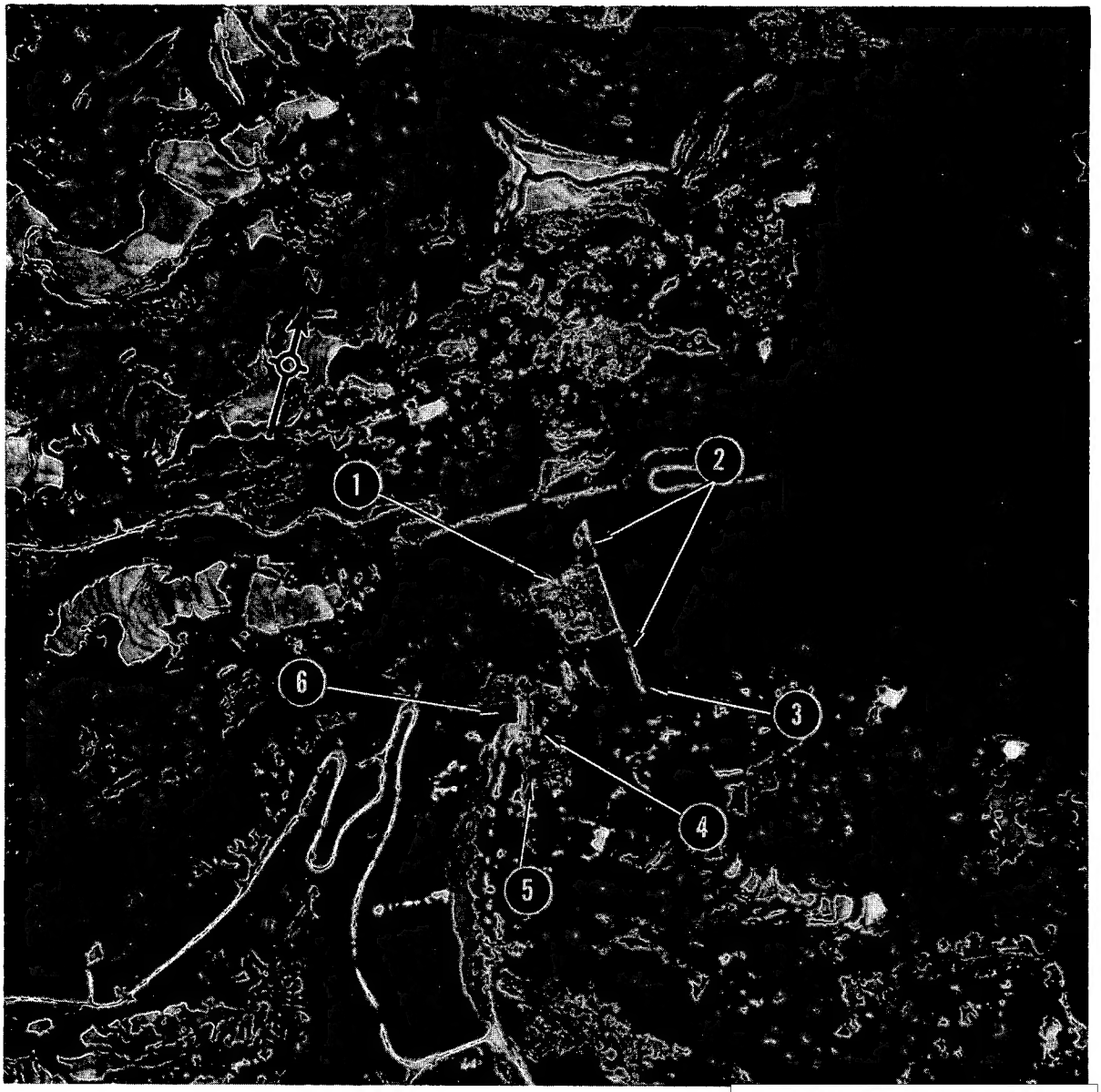

FIGURE 2. CHANG-SHOU HYDRO POWER PLANT HSIA-TUNG, CHINA

Key to Annotations	
Item	Description
1	Spillway
2	Dam
3	Water intake
4	Powerhouse
5	Switching Yard
6	Tailrace

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INSTALLATION OR ACTIVITY NAME		COUNTRY
Chang-shou Hydro Power Plant Hsia-tung		CH
UTM COORDINATES 48RYJ036029	GEOGRAPHIC COORDINATES 29-49-17N 107-07-10E	25X1
MAP REFERENCE 15th RTS. USATC, Series 200, Sheet M0495-15HL, 2nd ed, Apr 65, Scale 1:200,000 (SECRET/)		25X1
LATEST IMAGERY USED	NEGATION DATE (If required) NA	25X1

BASIC DESCRIPTION

Chang-shou Hydro Power Plant is located 2 nm east of Chang-shou on the Lung River.

The plant facilities include a concrete dam, a spillway, a powerhouse and a switching yard. The water intake is located at the south end of the dam. Two probable transformers in the switching yard suggest that there are probably two turbogenerators in the powerhouse.

The plant was complete when first observed on photography of June 1963. No changes have been observed on subsequent photography through August 1969.

The powerhouse was operating in June 1963 when turbulence was observed in the tailrace. The small scale of subsequent coverage in July 1963, August 1968, and August 1969 precluded the observation of any turbulence in the tailrace. The plant was probably active in August 1968 and August 1969, because the river continued to flow below the powerhouse although no water was observed coming down the spillway. This water probably was flowing through the powerhouse.

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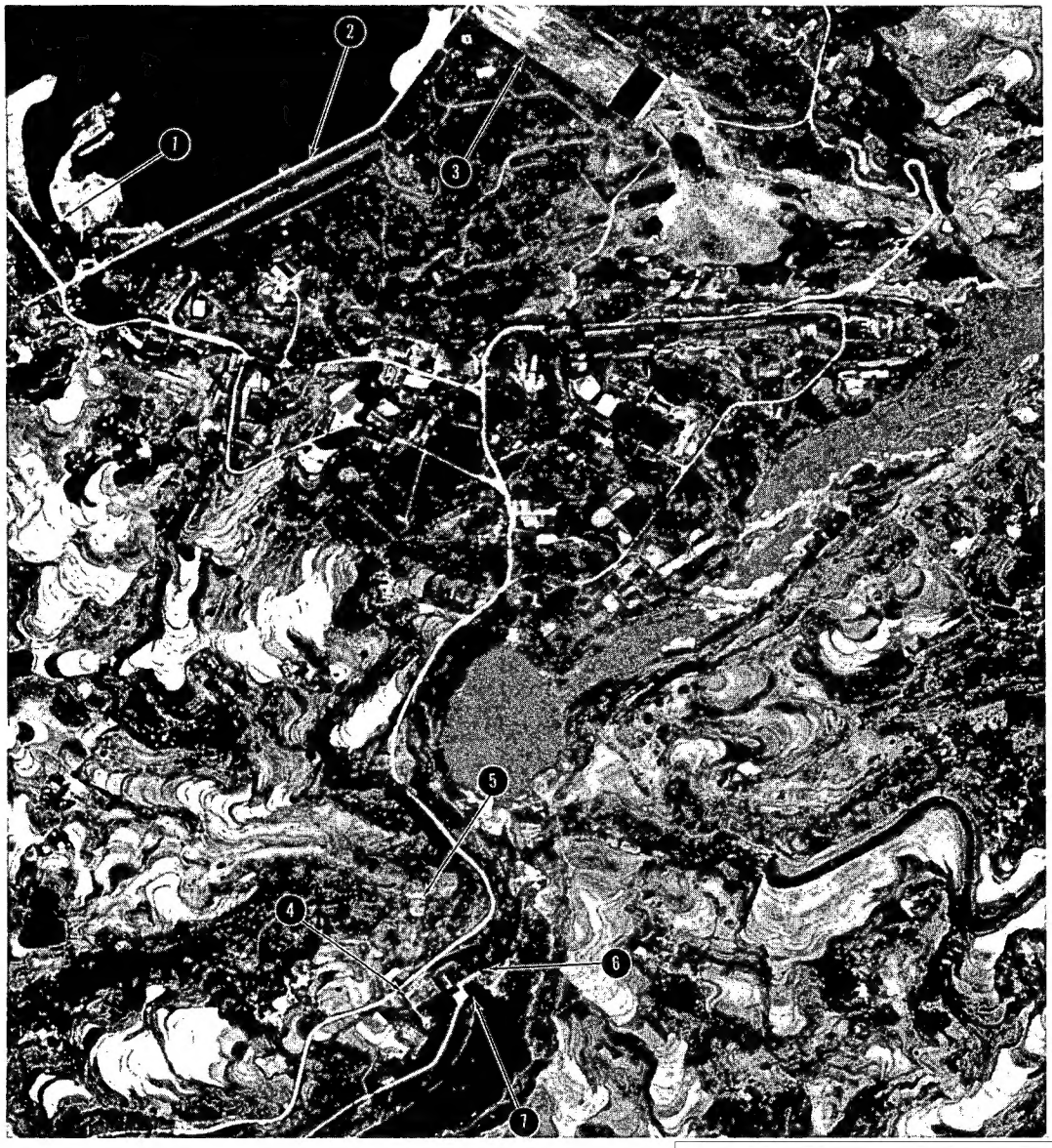

FIGURE 3. CHANG-SHOU HYDROPOWER PLANT SHIH-TZU-TAN

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Key to Annotations	
Item	Description
1	Water Intake
2	Earthen Dam
3	Spillway
4	Switching Yard
5	Surge Tank
6	Powerhouse
7	Tailrace

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INSTALLATION OR ACTIVITY NAME	COUNTRY
Chang-shou Hydro Power Plant Shih-tzu-tan	CH

UTM COORDINATES	GEOGRAPHIC COORDINATES
48RYJ145107	29-53-32N 107-14-12E

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MAP REFERENCE

15th RTS. USATC, Series 200, Sheet M0495-15HL, 2nd ed, Apr 65, Scale 1:200,000 (SECRET/

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LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

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BASIC DESCRIPTION

Chang-shou Hydro Power Plant is located 9.5 nm northeast of Cheng-shou on the Lung River. The powerhouse is about 1 nm south of the dam.

The plant facilities include an earthen dam with a concrete spillway, a powerhouse, a switching yard, a surge tank and underground conduits. The water intake for the power plant is located at the west end of the dam. Four discharges at the base of the powerhouse indicate that it was designed to contain four turbogenerators. In June 1963 at least two and possibly three transformers were observed.

The powerhouse was complete when first observed on photography of June 1963. No changes have subsequently been observed on small scale photography through August 1969.

The powerhouse was operating in June 1963 and July 1965 when turbulence was observed in the tailrace. The small scale of the August 1968 and August 1969 photography precluded the observation of turbulence, but there was evidence that the plant was active. Although no water was observed coming down the spillway of the dam, water was flowing below the powerhouse. This water was probably coming through an underground conduit and the powerhouse.

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INSTALLATION OR ACTIVITY NAME	COUNTRY
Chung-ching Thermal Power Plant 507	CH

UTM COORDINATES	GEOGRAPHIC COORDINATES
48RXH495625	29-29-00N 106-32-22E

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MAP REFERENCE

15th RTS. USATC, Series 200, Sheet M0495-19HL, 3rd ed, Mar 68, Scale 1:200,000 (SECRET/

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LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

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BASIC DESCRIPTION

No changes have been observed at Chung-ching Thermal Power Plant 507 since August 1968, the date of the latest photography used in the previous report.

The plant was in operation in August 1969. Heavy smoke was emanating from the stack serving the northern boilerhouse.

REFERENCES

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Document

CIA. BCS 13/0119/69, Chung-ching Thermal Power Plant 507, February 1969, TCS 12657/68 (TOP SECRET RUFF)

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INSTALLATION OR ACTIVITY NAME		COUNTRY
Kuan-hsien Hydro Power Plant Yu-tsui		CH
UTM COORDINATES	GEOGRAPHIC COORDINATES	
48RUK672319	31-00-22N 103-36-22E	

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MAP REFERENCE

15th RTS. USATC, Series 200, Sheet MO495-7HL, 2nd ed, Dec 64, Scale 1:200,000 (SECRET

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LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

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BASIC DESCRIPTION

No changes have been observed at Kuan-hsien Hydro Power Plant since January 1967, the date of the photography used in the previous report. The plant remains incomplete and is not operational.

REFERENCES

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Document

CIA. RCS 13/0110/69, Selected Chinese Power Plants, May 1969 (TOP SECRET RUFF)

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FIGURE 4. NEI-CHIANG THERMAL POWER PLANT PAI-MA-MIAO,

Key to Annotations		
Item	Description	Dimensions (Ft)
1	Switching yard	430 x 175
2	Control House	80 x 60
3	Generator Hall	380 x 100
4	Boilerhouse	380 x 140
5	Coal Preparation and Storage Facility	

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INSTALLATION OR ACTIVITY NAME	COUNTRY
Nei-chiang Thermal Power Plant Pai-ma-miao	CH

UTM COORDINATES	GEOGRAPHIC COORDINATES
48RWH006668	29-31-45N 105-00-11E

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MAP REFERENCE

15th RTS. USATC, Series 200, Sheet M0495-18HL, 2nd ed, Jun 65, Scale 1:200,000 (SECRET

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LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

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BASIC DESCRIPTION

Nei-chiang Thermal Power Plant is located approximately 5 nm southwest of Nei-chiang, adjacent to the Chiang River. The plant occupies an area 1,200 by 1,200 feet, is partially secured by a wall, and is rail and road served.

The plant was first observed on photography of January 1963. At that time it contained a boilerhouse, a generator hall, a coal preparation and storage facility, and a switching yard. The boilerhouse had at least two boilers and was served by a single masonry stack. Between June 1966 and November 1968 the plant was expanded. The boilerhouse and generator hall were doubled in size and a second masonry stack was built. The coal preparation and storage facility and the switching yard were expanded.

The plant was operating in January 1963 as smoke was emanating from the stack. The operational status of the plant in June 1966 could not be determined due to the poor quality of the photography. The plant was operating on subsequent photography as indicated by heavy smoke emanating from the new stack in November 1968 and from both stacks in February 1969.

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